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**MARYLAND DEPARTMENT OF THE ENVIRONMENT**  
**WATER MANAGEMENT ADMINISTRATION**

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## **SAMPLE STORMWATER UTILITY ORDINANCE**

This sample ordinance is designed to provide guidance to local officials in establishing stormwater utilities. It is based on a review of 20 stormwater ordinances used in other communities throughout the country. While some of the sections can be incorporated into an actual ordinance essentially as written, most will have to be modified and adapted to local circumstances. Several sections (e.g., those concerning requirements for watershed planning and exemptions from stormwater charges) are optional; local officials must determine whether these ought be included. The ordinance has been written for officials who are interested in forming a utility to serve a single jurisdiction. Officials interested in forming a utility to serve multiple jurisdictions should contact the Water Management Administration for additional information.

### **1.0 FINDINGS, INTENT, AND AUTHORITY**

#### **1.1 Findings**

The (unit board/council) finds that:

- the (unit) maintains a system of storm and surface water management facilities, including but not limited to inlets, conduits, manholes, channels, ditches, drainage easements, retention and detention basins, infiltration facilities, and other components as well as all natural waterways;
- the stormwater system has received inadequate maintenance and is in a state of disrepair;
- water quality is degrading due to channel erosion and the discharge of nutrients, metals, oil, grease, toxics, and other substances into and through the stormwater system;
- the public health, safety, and welfare is adversely affected by poor ambient water quality and flooding that results from inadequate management of both the quality and quantity of stormwater; and
- the (local unit) is exposed to the possibility of costly litigation due to the state of disrepair of the existing system and the potential for floods that can damage property, injure individuals, and impede the movement of emergency vehicles.

The (unit board/council) further finds that:

- every parcel of real property, both public and private, either uses or benefits from the maintenance of the stormwater system;
- current and anticipated growth in (unit) will contribute to and increase the need for improvement and maintenance of the stormwater system;

- the extent of use of the stormwater system by each property is dependent on factors that influence runoff, including land use and intensity of development, the amount of impervious surface on the property, and the geographic location of property in a given watershed or basin;
- owners of properties should finance stormwater management to the extent that they contribute to the need for it;
- responsibility for stormwater management has not been clearly defined, that planning for stormwater management should be improved, and that the necessary and true costs of stormwater management have not been reflected in past expenditures by the (local unit);
- management of the stormwater system to protect the public health, safety and welfare will require increased revenues; and
- it is in the interest of the public to consolidate responsibility for managing the stormwater system within a single agency, to initiate long range master planning, to undertake water quality management and stormwater system maintenance activities, and to finance stormwater management adequately with a user charge system that is reasonable and equitable so that each user of the system pays commensurate with the volume of runoff contributed to it.

## 1.2 Intent

Therefore, with the passage of this ordinance, it is the intent of (unit board/council) to promote the public health, safety, and welfare by:

- creating a stormwater management utility to manage the stormwater system;
- consolidating responsibility for all stormwater management activities in (unit agency);
- preparing long range master plans for stormwater management for each watershed basin in (unit);
- undertaking regular maintenance and requiring annual inspections of all stormwater management facilities, both public and private;
- financing stormwater management adequately through the imposition of user charges for each piece of real property that uses the stormwater system;
- setting charges such that the fees paid by each user reflect the extent to which the user creates need for the system and such that the charges bear a substantial relationship to the cost of service; and

- creating a rate structure based on the intensity of development, the land use, and the amount of impervious area on each property that is fair and equitable; is simple and can be administered easily; and can generate sufficient revenues.

### 1.3 Authority

Authority for the creation of this stormwater utility and the imposition of charges to finance stormwater management is conferred in §4-204(d) Environment Article, Annotated Code of Maryland, 1996, which states:

“Each governing body of a county or municipality may adopt a system of charges to fund the implementation of stormwater management programs...”

The provisions of this ordinance are adopted under the authority of the (unit) code and shall apply to all real properties within the (unincorporated, incorporated) area of (unit). The application of this ordinance and the provisions expressed herein shall not be deemed a limitation or a repeal of any other powers granted by State statute.

### 2.0 DEFINITIONS

- (1) "Board" means the Stormwater Management Board created under Sections 3.2 and 3.3 of this ordinance to provide advice to the (unit board/council) concerning all matters of utility operation.
- (2) "Charges" are fees levied on owners or occupants of parcels or pieces of real property based on the runoff contribution of the property.
- (3) "Credits" are reductions in the amount of charges that are levied against a property.
- (4) "Equivalent runoff units" (ERU) are units used to determine stormwater charges that are calculated by multiplying the area of a parcel times a rate factor that is based on the percentage of impervious surface.
- (5) "Impervious surface" means surfaces on or in a lot or parcel of real property that eliminate infiltration of stormwater into the earth.
- (6) "Intensity of development" refers to the percentage of a parcel that is covered with impervious surface.
- (7) "Plan" means a master stormwater plan prepared under the authority of this or any other ordinance that identifies the existing stormwater system and recommends a program and specific projects for continued development and improvement of the system for the purposes of flood control and water quality management.
- (8) "Owner or occupant" is the person who pays, or is legally responsible for the payment of utility or other metered charges, made against a lot(s), parcel(s) of land,

building(s), office(s) or premises within the \_\_\_\_\_.

- (9) "Single family equivalents" are units based on those established for single family residential parcels used to express ERUs for other land use types.
- (10) "Stormwater system" means the system or network of storm and surface water management facilities, including but not limited to inlets, conduits, manholes, channels, ditches, drainage easements, retention and detention basins, infiltration facilities, and other components as well as all natural waterways;
- (11) "Undeveloped land" is a parcel of land that is without any building, structure, or improvement.
- (12) "Users" are owners or occupants of a piece of real property within the boundaries of the utility that contributes runoff to the stormwater system.
- (13) "Utility" means the administrative organization of the (unit) that has been established exclusively for the purposes of stormwater management and flood control and is authorized to impose and collect charges for these same purposes.

### 3.0 CREATION AND ADMINISTRATION OF UTILITY

#### 3.1 Establishment of a Stormwater Management Utility

In accordance with all applicable laws of the State of Maryland, the (unit council/board) hereby establishes a stormwater management utility with the authority to determine and levy charges for stormwater management. The utility will be in the (local agency, e.g., Department of Public Works) under the control of the (agency administrator, e.g., County Administrator).

#### 3.2 Boundaries and Jurisdiction

The boundaries of the utility shall be [boundaries of local jurisdiction(s) or (such watersheds within the boundaries of the local jurisdiction as identified by the local agency administrator] and approved by the (unit council/board).

#### 3.3 Creation of a Stormwater Management Board (optional)

To assist with management of the utility, the (unit council/board) hereby establishes a Stormwater Management Board (Board) to provide advice to the (unit council/board) concerning all aspects of the program and the utility. The Board shall consist of five to seven members as determined from time to time by the (unit council/board). The (unit council/board) shall appoint all members', terms shall be four years, and initial appointments shall be made so that members terms overlap. The (local unit council/board) shall appoint persons to fill vacancies that may exist on the Board from time to time.

### 3.4 Duties of the Board (optional)

The Board shall provide advice and recommendations on all aspects of the management and operation of the utility including:

- identifying stormwater management problems;
- developing a long range master plan for stormwater management, including priorities for implementing capital improvements;
- determining utility charges; and
- providing for petitions or appeals by users of the system who contest the levels of charges or request waivers or exemptions.

### 3.5 Utility Administration

The (local agency administrator) shall have responsibility for implementing all aspects of the utility including long range planning, plan implementation, capital improvements, stormwater facility maintenance, stormwater charge determination, billing, ordinance enforcement, and hearings for appeals and petitions. The (local agency administrator) will also be responsible for providing staff support to the (unit council/board) and the Board. Such responsibility will be delegated to those agencies and staff within the (local unit) administration best equipped to undertake the particular task. In the event that an agency or department other than the one in which the utility is located is better equipped to undertake a particular task, the (local agency administrator) shall ensure that appropriate interagency charges are determined so that all costs are reflected in the utility budget and that utility charges finance all aspects of stormwater management.

### 3.6 Scope of Utility Responsibility

The (local unit council/board) hereby transfers all components of the stormwater system presently maintained by other agencies within (local unit) to the utility. The utility shall have full responsibility for planning, developing, and maintaining of the stormwater system. The utility will be responsible for all additions to the stormwater system constructed with public funds.

With respect to new stormwater management facilities constructed by private entities, the (local agency administrator) shall develop criteria to determine whether these will be maintained by the utility or by the private entity which has constructed them. Such criteria may include whether the facility has been designed primarily to serve residential users and whether it has been designed primarily for purposes of stormwater management. In general, preferences shall be given to public maintenance of new facilities, particularly for those facilities designed to provide water quality benefits. In situations in which it is determined that public maintenance is not preferable, standards shall be developed to ensure that the inspection of facilities occurs annually and that facilities are maintained as needed.

#### 4.0 MASTER STORMWATER PLAN (OPTIONAL)

The (unit council/board) hereby requires the (local agency administrator) to prepare a Master Stormwater Management Plan (Plan) for each watershed in (unit). The Plan shall establish goals for stormwater management and shall be the basis for determining all future activities, including capital improvements and maintenance activities, which are undertaken by the utility. The utility shall not undertake any activities that are not recommended in the Plan.

In general, the plan shall include an inventory of all existing stormwater facilities and identify alternative actions that the utility can undertake to achieve water quality goals and to determine the costs of such alternatives. The Plan shall include those maps as necessary to show the location of facilities and alternatives by basin. Projects or facilities that are proposed should clearly be linked to projected improvements in water quality or flooding situations and shall reflect State requirements and preferences for on-site controls of stormwater runoff. The Plan shall include benefit-cost analyses which can be used to compare alternatives. Where they exist, planning documents for individual basins may be consolidated as part of the master Plan.

The Plan shall be submitted to the (unit board/council) for approval not more than one year following the establishment of the utility. From time to time, as required by the (local unit board/council), the (local agency administrator) shall update the Plan.

#### 5.0 STORMWATER USER CHARGES

##### 5.1 Creation and Purpose of Stormwater Charges

The (unit board/council) hereby establishes stormwater user charges to finance all utility activities. Necessary activities generally are those identified in the Plan and at a minimum shall be identified as administrative, operations and maintenance, and capital improvements. Such charges shall be paid by each user of the stormwater system and will reflect the extent to which each user contributes runoff to the system. The charges will bear a substantial relationship to the cost of service provided to the property. The rate structure shall be fair and equitable, simple and easy to administer, and generate sufficient revenue to fund all necessary utility activities.

The use of charges is limited to those activities for which the utility was established, including but not limited to: planning; acquisition of interests in land and real property, including easements; design and construction of facilities, including debt service and related financing expenses; maintenance of the stormwater system; billing and administration; and water quality management, including monitoring, surveillance, and construction and maintenance inspection. If the (local agency administrator) determines that capital charges will be different among drainage basins, it shall be required that capital expenditures from the fund relate to the particular basin from which the fees were collected. It shall not be required, however, that expenditures for administration and operations and maintenance relate to the particular basin from which the fees were collected.

If the Board determines that rate increases are needed to achieve the goals of the Plan, utility charges may be increased periodically to cover all costs. Updates of the Plan shall include estimates of the amount of rate increases that would result from implementing the Plan.

## 5.2 Calculation of Fees

The (local agency administrator) shall establish a method for calculating charges and a rate structure based on the intensity of development, land use, and the amount of impervious surface on each property. Prior to implementing the utility, the (local agency administrator) shall submit the proposed rate structure to the (unit board/council) for approval. Because intensity of development and the amount of impervious area per parcel generally correlate with the type of land use, user categories generally shall be identified as land use categories. To the extent practicable, the classes of users shall correspond to standardized land use categories used by the Maryland Department of Planning (MDP). If the number and size of capital improvements to be undertaken in each drainage basin differ significantly, local officials may decide to vary capital charges among them. If capital charges are calculated separately for different drainage basins, however, administrative and operations and maintenance expenses shall not differ.

In general, fees shall be calculated using the following formula:

$$\text{Charge per parcel} = (\text{area} * \text{rate factor} * \text{charge per ERU}) + \text{credit or surcharge}$$

where:

Area = the total area of the, property;

Rate factor = a coefficient used to reflect the amount of impervious area and the percentage of rainfall that leaves a property as runoff (Table 1);

ERU = equivalent runoff unit;

Charge/ERU = a charge per quantity runoff established such that each user of the system pays an equal amount for the per unit volume of runoff and the total revenue requirements of the Utility are met. Credits or surcharges are determined as in Section 7.0.

Rate factors similar to those included in Table 1 are to be used to determine charges. If the (local agency administrator) determines rate factors should be scaled for non-single family residential parcels so that they are based on single family equivalents, such a rate structure may be developed. Total revenue needed by the utility shall be at those necessary to achieve stormwater management goals and shall include but not be limited to the costs identified in the Plan.

Initially, all charges shall be based on rate factors that correspond to general land use. For individual properties other than single family residential, the (local agency administrator) shall



survey existing sources of information for data concerning the amount and percent of impervious area for the non-residential categories. Once the utility is established, the (local agency administrator) shall commence a program to verify the amount of impervious area on all properties. Information to be used may include data from on-site measurements, site development plans, tax assessors records, data from aerial photographs, or any other available sources. Eventually, all charges for non-residential properties shall be based on the amount of impervious area on the properties as verified by the (local agency administrator).

**Table 1. Representative Rate Factors for Utility Charges.**

Land Use Category	Average Percent Imperviousness	Rate Factor
Agriculture	—	0.10
Commercial	0.85	0.82
Commercial	0.70	0.68
Residential		
Exempt	—	0.26
Parks	0.07	0.11
Playgrounds	0.13	0.17
Schools	0.50	0.50
Industrial	0.72	0.70
Apartments	0.65	0.64
Residential	—	
Acreage (A)	0.65	0.40
< $\frac{1}{8}$		
(townhouses)		
$\frac{1}{8} < A < \frac{1}{4}$	0.38	0.40
$\frac{1}{4} < A < \frac{1}{2}$	0.30	0.40
$\frac{1}{2} < A < \frac{1}{2}$	0.25	0.40
$\frac{1}{2} < A < 1$	0.20	0.23
$1 < A$	0.12	0.16
Residential-	—	0.16
Agricultural		
Residential-	—	0.64
Commercial		
Condominium	—	0.64
Condo-Commercial	—	0.68
Marshland	—	0.00
Other Non-standard Categories		
Cooperative	—	0.64
Mobile	—	0.64
Group Quarters	—	0.64
Motel	—	0.82
Other	—	0.50

Estimates of the average percentage of impervious area are from the Natural Resource Conservation Service's (NRCS) TR-55 Model. The estimate of .65 for apartments was taken from the TR-55 estimate for townhouses. A "-" in the average impervious column means that no estimate corresponded directly with the land use category. The rate factors were determined by selecting figures for a comparable use [e.g., Residential Agriculture was assigned the same rate factor as Residential 1 < Acreage]. The equation used to convert average impervious area to a rate factor is:

$$C = .95 (\% \text{ imp.}) + .05 (1 - \% \text{ imp.})$$

where:

C = the runoff coefficient or rate factor for a parcel;

% imp. = the percentage of impervious surface on a parcel.

### 5.3 Standardized Residential Charges

The (unit board/council) finds that most parcels of real property are classified as single family residential, that the intensity of development of these parcels is similar, and that it would be excessively expensive to determine precisely the percentage of impervious area on each parcel. Therefore, the (unit board/council) directs the (local agency administrator) to standardize charges for all single family residential users. Based on a representative sample of single family residential parcels, the (local agency administrator) shall determine the average amount of impervious surface, and the number of ERUs per parcel. The standard residential charge shall be a flat fee equal to the average number of ERUs times the charge per ERU. The (local agency administrator) may establish classes of single family residential users based on total parcel area if doing so would better reflect the contribution of runoff and would result in more equitable charges.

### 5.4 Charges in the Event of Multiple Owners

In the case where multiple owners or occupants are metered individually on a single property (e.g., condominium, shopping center, etc.), the average number of owners or occupants and the total property impervious area will be used to determine individual charges. If there are significant differences in the total area of property owned or occupied by any owner or occupant, the (local agency administrator) shall also consider the relative contributions to runoff in determining the allocation of the total charge to the owners/occupants.

### 5.5 Charges for Public Properties

The (unit board/council) finds that all real property owned and maintained by various local, State, and federal governmental units contributes to runoff and the stormwater management problem. Public properties, including streets and rights-of-way and properties owned by other local units such as school districts, are to be charged as if they were private properties. In the case of properties owned by (the local unit), such charges will be paid from the general fund and deposited into the Stormwater Utility Fund. In the case of properties owned by other local governments, or State or federal governments, intergovernmental charges shall be levied.

### 5.6 Watershed Management Areas

If in the Plan significant differences in capital requirements are found to exist in different drainage basins, and the (local agency administrator) determines that different capital fees shall be established, public hearings shall be held and watershed management areas shall be established to accommodate different rate charges.

## 6.0 STORMWATER FUND

### 6.1 New Stormwater Fund

The (unit board/council) hereby directs the (local agency administrator) to establish a separate enterprise fund called the Stormwater Utility Fund (SUF) to be used exclusively for purposes of the utility. All revenues received by the utility shall be deposited into the SUF. All disbursements will be for expenditures for stormwater management authorized by (local agency administrator) in accordance with all applicable laws, regulations, and policies.

### 6.2 Interagency Charges

As is necessary, the (local agency administrator) shall develop a procedure for implementing and accounting for interagency charges such that all expenditures for the purposes of stormwater management are paid by revenues from stormwater charges. Examples of the types of expenditures that should be accounted for by interagency charges and paid for with utility revenues include legal fees, billing, and other general administrative expenses. In addition, the procedure shall include provisions to insure that charges to the general fund for runoff from public properties are credited to the SUF.

## 7.0 CREDITS, EXEMPTIONS AND SURCHARGES

### 7.1 Credits for On-site Management

The (local agency administrator) shall develop and implement procedures where users of the stormwater system can receive credit for on-site treatment of stormwater runoff. Such credit will consist of partial exemption from user charges. Determination of the credit will depend in part on calculations made by the (local agency administrator) and be based on the extent of runoff control. The (local agency administrator) shall consider the degree of control of both the quantity and quality of stormwater when determining credits. In addition, the (local agency administrator) shall consider future maintenance responsibility when determining credits (see Section 3.6). In no case shall the user charge be reduced to an amount less than the standard single family residential charge.

Such credits shall remain in effect as long as the owner of such systems has obtained the proper permits and constructed the facilities according to plans approved by (local agency), the owner remains responsible for all costs of operation and maintenance of the system, and the (local agency administrator) has access for inspection of the system to determine if it is in compliance with design and maintenance standards.

### 7.2 Exemptions from Charges (OPTIONAL)

Notwithstanding any local ordinances which exempt certain parcels from responsibility for implementing stormwater controls, all properties except those listed here will be liable for payment of stormwater charges. Properties exempted from payment of stormwater charges include:

- wetlands, ponds, and other natural watercourses that serve as components of the stormwater management system;
- public parks that have not been developed and include not impervious area and are predominantly in their natural state;
- agricultural land (Note: Table 1 includes runoff coefficients for agricultural land in the event it is charged); and
- undeveloped land.

### 7.3 Surcharges for Parcels in Floodplains (OPTIONAL)

Properties of land lying within the historical 100 year floodplain may be flooded despite activities undertaken by the utility. Costs to protect such properties generally will exceed costs to protect other properties. Because costs to protect these parcels will be greater, a surcharge shall be levied on them. The (local agency administrator) shall undertake studies to determine the increase in costs necessary to protect these properties and shall recommend to the (local unit board/council) a surcharge stated in terms of a percentage of the general utility charge for a similar parcel not in the 100 year floodplain.

## 8.0 BILLING

The (local agency administrator) shall modify existing utility billing systems to incorporate stormwater charges. For properties not served with water or sewer by (the local unit), the (local agency administrator) shall develop a new billing system that can be added to an existing system. Information included in the billing system shall include, but not be limited to, the owner of each property and land use information required to calculate the charges.

## 9.0 ENFORCEMENT AND PENALTIES

### 9.1 Enforcement

In the event that any user fails to pay the specified charges, the (local agency administrator) shall take the necessary legal steps to collect such charges. This may be accomplished by placing a lien on the property, which may be placed on the tax bill and collected as ordinary taxes by the County/Municipality.

### 9.2 Penalties (OPTIONAL)

Any person convicted of violating the provisions of this ordinance shall be guilty of a misdemeanor, and upon conviction thereof, shall be subject to a fine of not more than Five Thousand Dollars (\$5,000.00) or imprisonment not exceeding 1 year or both for each violation with costs imposed in the discretion of the court. Each day that a violation continues shall be a separate offense. In addition, the (governing authority) may institute injunctive, mandamus or other appropriate action or proceedings of law to correct violations of this ordinance. Any court

of competent jurisdiction shall have the right to issue temporary or permanent restraining orders, injunctions, or mandamus or other appropriate forms of relief.

## 10.0 APPEALS

Any person aggrieved by an action of the (local agency administrator) charged with enforcing this ordinance, who believes that stormwater charges have been imposed without basis or have been determined incorrectly, shall have the right to appeal and may petition the (local hearing examiner) for a hearing to contest such charges. The appeal shall be filed in writing within (time frame) of the date of official notification or transmittal of the contested determination by the (local agency administrator). The petitioner shall state clearly the grounds on which the appeal is based. The appeal shall be processed in the manner prescribed for hearing administrative appeals under (local or State code provision).

## 11.0 SEVERABILITY

If any section, subsection, sentence, clause, phrase, or portion of this ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision. Such holding shall not affect the validity of the remaining portions of this ordinance, it being the intent of the (local unit board/council) that this ordinance shall stand on its own merit.

## 12.0 FLOODS AND LIABILITY

Floods from stormwater runoff may occur occasionally that exceed the capacity of the stormwater system maintained and financed with utility charges. This ordinance does not imply that properties subject to charges shall always be free from flooding or flood damage, or that all flood control projects to control runoff can be constructed cost-effectively. Nothing whatsoever in this ordinance shall deem the (local unit, local unit board/council, (local agency administrator, or local agency staff) liable for any damages incurred in a flood or from adverse water quality. Nothing in this ordinance purports to reduce the need or necessity for flood insurance.